

REMARKS

Claims 1-38 remain pending in the present application. No claims have been amended.

REJECTION UNDER 35 U.S.C. §103(a)

The Examiner rejects Claims 1, 3-6, 8-11 and 17-21 under 35 U.S.C. §103(a) alleging them to be unpatentable over International Patent WO 01/66899 to Peetz in view of Huber (U.S. Patent No. 6,702,047). The Examiner alleges that the combination would render Applicant's invention obvious to those skilled in the art.

Claim 1 defines, among other elements, a central chiseling dome with a pair of cutting edges extending radially outwardly from the chiseling dome. The cutting edges have a trailing relief face and an acute angle between the relief face and the longitudinal axis. The acute angle varies from a radially inner portion to a radially outer end of each cutting edge.

The art relied on by the Examiner fails to disclose or suggest Applicant's invention. The Examiner alleges that Huber discloses an elliptical dome shape. Clearly, this is not the case. Referring to Figs. 4, 5, and 6 of Huber, it is clear that a cutting edge extends from one side of the cutting plate to the other. The chisel edge, centered on the cutting edge, is illustrated in Figs. 5 and 6 (parallel with the line E drawn through it). The cutting edge is at the apex of surfaces 11 and 11'. Huber neither discloses nor suggests a central chiseling dome as claimed. The central chiseling dome, as illustrated in Applicant's invention, does not include the chisel edge or cutting edge as shown in Huber. Also, Huber illustrates in Figs. 5 and 6 that the relief angle is

the same across the cutting edge. It does not vary as suggested by the Examiner. Accordingly, Claim 1 is patentably distinct over the art cited by the Examiner. Likewise, Claims 2-21 which depend from Claim 1 are patentably distinct over the art cited by the Examiner.

The Examiner rejects Claims 1, 3-6, 8-11 and 16-17 under 35 U.S.C. §103(a) as being unpatentable over Obermeier (U.S. Patent No. 5,487,434) in view of Huber (U.S. Patent No. 6,702,047).

The Examiner relies on Huber for the same elements as outlined above. As explained above, Huber fails to disclose or suggest a central chiseling dome or trailing relief face at an acute angle that varies from an inner portion to the outer end. The Obermeier reference fails to disclose or suggest such features.

Accordingly, Claim 1 is patentably distinct over the art cited by the Examiner. Likewise, Claims 2-21 which depend from Claim 1 are patentably distinct over the art cited by the Examiner.

The Examiner has rejected Claims 12-15 under 35 U.S.C. §103(a) as being unpatentable over Peetz in view of Rumpp et al. (U.S. Patent No. 5,265,688) and also Obermeier in view of Rumpp et al.

Rumpp et al., as well as Peetz and Obermeier, fails to disclose or suggest the claimed central chiseling dome or the claimed trailing relief face. Accordingly, the Examiner's rejection fails to disclose or suggest Applicant's invention. Thus, Applicant believes Claim 12-15 to be patentably distinct over the art cited by the Examiner.

The Examiner has rejected Claims 22-25 and 31-36 under 35 U.S.C. §103(a) as being unpatentable over Peetz in view of Rumpp et al. The Examiner alleges that this combination discloses Applicant's invention.

The Peetz reference cited by the Examiner, as best illustrated in Fig. 1b, illustrates flutes which bulge at the cutting plate. The Peetz reference shows no desire or need for a concave surface as claimed by Applicant.

The Examiner alleges that Peetz would be combined with Rumpp et al. to suggest such a feature. However, Peetz teaches away from a concave surface. To combine it with a concave surface would be utilizing hindsight. The Examiner is using the Applicant's invention as a template to combine the two references. There is no motivation or suggestion between the two references to combine them as suggested by the Examiner. In fact, the Rumpp et al. reference illustrates a double helix wherein the design would not enable the alleged concave surface to dump into a plurality of channels as claimed by Applicant.

Accordingly, Applicant believes Claim 22 to be patentably distinct over the art cited by the Examiner. Likewise, Claims 23-38 which depend from Claim 22 are patentably distinct over the art cited by the Examiner.

The Examiner has rejected Claims 22-25 and 31-38 under 35 U.S.C. §103(a) as being unpatentable over Obermeier in view of Rumpp et al.

The Obermeier reference has an auxiliary flute on the helix to reduce friction. Also, the auxiliary groove picks up drillings caught between the helix land and the bore hole wall. As illustrated in Fig. 1, the auxiliary helix is not designed to receive drillings removed by the plate. The combination with Rumpp et al. fails to disclose or suggest

Applicant's invention. The above remarks with respect to Rump et al. equally apply with respect to Obermeier.

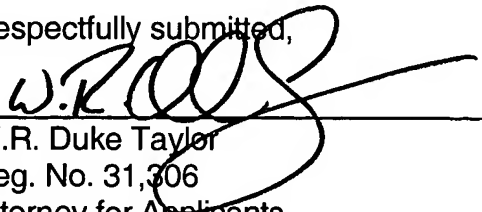
Accordingly, Applicant believes Claim 22 to be patentably distinct over the art cited by the Examiner. Likewise, Claims 23-38 which depend from Claim 22 are patentably distinct over the art cited by the Examiner.

The Examiner has rejected Claims 26, 28 and 30 under 35 U.S.C. §103(a) as being unpatentable over Peetz, in view of Rump et al., further in view of Huber. Also, these claims have been rejected as being unpatentable over Obermeier, Rump et al., further in view of Huber.

As mentioned above, the Huber reference fails to disclose or suggest a central chiseling dome or a trailing relief face as claimed. Accordingly, Applicant believes Claims 26, 28 and 30 to be patentably distinct over the art cited by the Examiner.

In light of the above amendments and remarks, Applicant submits that all pending claims are in condition for allowance. Accordingly, Applicant respectfully requests the Examiner to pass the case to issue at her earliest possible convenience. Should the Examiner have any questions regarding the present application, she should not hesitate to contact the undersigned at (248) 641-1600.

Respectfully submitted,


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